

IN THE CLAIMS

Claims 1-11 (cancelled)

12. (currently amended) An intervertebral prosthesis, which comprises a disc member dimensioned for insertion within an intervertebral space between adjacent vertebrae to replace at least a portion of an intervertebral disc removed therefrom, the disc member defining a longitudinal axis, the disc member including a substantially solid exterior wall having opposed longitudinal ends for positioning adjacent respective upper and lower vertebrae, each of said longitudinal ends having an outer curvature corresponding to the inward curvature of vertebral end plate of the upper and lower vertebrae, the solid exterior wall having wall surface portions defining a flexible helical slit therein extending therethrough continuously from a position adjacent the upper vertebrae to a position adjacent the lower vertebrae and being dimensioned to permit the exterior wall to elastically deform along the entire slit thereby compressing the same when subjected to a load, wherein the disc member includes first and second support surfaces disposed at respective longitudinal ends of the disc member and dimensioned to supportingly engage respective upper and lower vertebrae, wherein at least one of the first and second support surfaces defines an opening in communication with the inner cavity, and an end cap at least partially positionable within the opening in the one support surface to substantially close the opening, The intervertebral prosthesis according to claim 11 wherein the end cap includes an inner opening dimensioned to minimize rigidity of the end cap.

Claims 13-16 (cancelled)

17. (previously presented) An intervertebral prosthesis comprising:

a generally kidney-shaped prosthetic disc member for insertion within an intervertebral space between adjacent vertebrae to replace at least a portion of an intervertebral disc removed therefrom, said disc member having upper and lower vertebral support surfaces connected by a substantially solid exterior wall, each of said surfaces having an outer curvature corresponding to the inward curvature of vertebral end plates of the adjacent vertebrae, said exterior wall including a deformable helical slit therein extending continuously from a position adjacent the upper vertebral support surface to a position adjacent the lower vertebral support surface.

18. (original) The intervertebral prosthesis as set forth in claim 17 wherein the upper and lower vertebral support surfaces are parallel and have a perimeter arcuate in shape defining an outer curvature.

19. (original) The intervertebral prosthesis as set forth in claim 17 wherein said exterior wall and said slit extends around a central longitudinal axis through said upper and lower support surfaces.

20. (original) The intervertebral prosthesis as set forth in claim 19 wherein said continuous helical slit making at least one revolution about the longitudinal axis.

21. (currently amended) An intervertebral prosthesis, which comprises a disc member dimensioned for insertion within an intervertebral space between adjacent vertebrae to replace at

least a portion of an intervertebral disc removed therefrom, the disc member defining a longitudinal axis, the disc member including a substantially solid exterior wall having opposed longitudinal ends for positioning adjacent respective upper and lower vertebrae, the solid exterior wall having wall surface portions defining a flexible helical slit therein extending therethrough continuously from a position adjacent the upper vertebrae to a position adjacent the lower vertebrae and being dimensioned to permit the exterior wall to elastically deform along the entire slit when subjected to a load and wherein at least one of the first and second support surfaces defines an opening in communication with ~~an~~the inner cavity and wherein including an end cap at least partially positionable within the opening in the one support surface to substantially close the opening and wherein the end cap includes an inner opening dimensioned to minimize rigidity of the end cap.